Remarks

Applicants respectfully requests that the Examiner reconsider the present application in light of the above amendments and following remarks. Claims 5, 11, 12, and 18 have been amended and claims 2 and 10 have been cancelled without prejudice or disclaimer. Claims 24 and 25 have been added. Therefore, claims 1, 3-9, 11-19, 24 and 25 are pending in the present application.

Claim 1 has been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,409,102 to Luttrell et al. ("the Luttrell reference"). Applicant respectfully traverses this rejection.

Applicant submits that the Luttrell reference does not teach or suggest an electric solenoid formed of solenoid-quality stabilized ferritic stainless steel as recited in claim 1. The Luttrell reference states that the "inner housing (14) is made of stainless steel C40 alloy which is magnetically permeable." Col. 4, lines 61-62. In particular, the Luttrell reference states that Carpenter Technology high permeability 49 alloy or Carpenter Technology stainless steel 430F may be used to form the inner housing (14). *See* Col. 4, lines 65-67; Col. 5, lines 1-2. However, neither of these materials disclosed in the Luttrell reference has been shown to be a stainless steel including a stabilizing element to prevent high temperature metallurgical embattlement and sensitization. *See Specification*, pg. 5, lines 15-19. Since the materials disclosed in the Luttrell reference have not been shown to include a stabilizing element, the inner housing (14) disclosed in the Luttrell reference is not solenoid-quality stabilized ferritic stainless steel as recited in claim 1.

For at least the foregoing reason, Applicant submits that the Luttrell reference fails to teach or suggest every limitation disclosed in claim 1 and requests that the rejection of claim 1 be withdrawn.

Claims 2-19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Luttrell reference and U.S. Patent No. 5,091,024 to DeBold et al. ("the DeBold reference") and in further view of U.S. Patent No. 5,296,677 to Takahashi et al. ("the Takahashi reference"). Claims 2 and 10 have been cancelled. Therefore the rejection with respect to these claims is moot. Applicant respectfully traverses the rejection to the remaining claims 3-9 and 11-19.

The Patent and Trademark Office's burden of establishing a prima facie case of obviousness is not met unless "the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 189 U.S.P.Q. 143, 147 (C.C.P.A. 1976)). Applicant respectfully submits that a prima facie case of obviousness has not been established because the Takahashi reference is not properly combinable with the Luttrell reference and the DeBold reference.

In rejecting claim 3, the Examiner stated that it would have been obvious to one skilled in the art to combine the teachings of the Luttrell reference and the DeBold reference with the Takahashi reference by utilizing a welding method using a high energy density beam. *See Office Action*, pg. 4. However, there is no teaching or suggestion to weld the fuel injection components included in the

Luttrell reference as taught in the Takahashi reference. For example, in the Lutrell reference, one end of the fluid handling assembly (12) portion of the fuel injector (10) includes threads (50) that are adapted to engage a threaded cylinder head (52) of an engine. *See* Col. 4, lines 53-55; FIGS. 1a and 1b. Further, the fluid handling assembly (12) is also releasably connected to the electrical assembly (13) by a nut (36) that is adapted to engage threads (56) formed on an opposite end of the fluid handling assembly (12). *See* Col. 4, lines 40-42. Therefore, the above-referenced components are coupled together using threaded fasteners, not by welding.

There is no suggestion within the Luttrell reference to weld adjacent components contained therein, and certainly no suggestion to use the welding method disclosed in the Takahashi reference. In fact, the Luttrell reference specifically states that it is directed to a valve configuration that is compact, provides easy installation, removal, and servicing. *See* Col. 4, lines 8-16. Thus, there is no motivation for welding the components in the Lutrell reference. *See In re Rudko*, Civ. App. No. 98-1505 (Fed. Cir. May 14, 1999) (unpublished) (invention held not obvious wherein one prior art reference taught away from combination with a second prior art reference).

Further, there is no motivation or suggestion to combine the teachings of the Takahashi reference with the DeBold reference. The DeBold reference is generally directed to the composition of a ferritic alloy. Nothing in the DeBold reference suggests that adjacent pieces of the subject alloy presented in the DeBold reference are joined together by welding. Thus, there has been no

showing in either of the references of a motivation or suggestion to combine one or more of the ferritic alloy pieces discussed in the DeBold reference with the welding methods discussed in the Takahashi reference. *See In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992) (stating that the Examiner simply cite different features of the claimed invention without explaining the motivation to combine or modify the prior art references).

For at least the foregoing reasons, Applicant submits that a prima facie case of obviousness has not been established and requests that the rejection of claim 3 be withdrawn. As claim 4 depends from claim 3, claim 4 is also not rendered obvious by the references of record for at least the same reasons set forth with respect to claim 3.

Claim 5 is directed to a fuel injector assembly including a plurality of components formed of a solenoid-quality stabilized ferritic stainless steel. At least two of the plurality of components are adjacent and are joined together by welding.

For reasons similar to those set forth above, the Luttrell reference and DeBold references are not properly combinable with the Takahashi reference. Therefore, Applicant submits that a prima facie case of obviousness has not been established and requests that the rejection of claim 5 be withdrawn. As claims 6-9 and 11-17 depend either directly or indirectly from claim 5, claims 6-9 and 11-17 are also not rendered obvious by the references of record for at least the same reasons set forth with respect to claim 5.

Claim 18 is directed to a fuel injector assembly including an electric solenoid actuator, wherein the assembly includes a fuel tube formed of an austenitic stainless steel and an injector body formed of a stabilized ferritic stainless steel. In addition, the fuel tube and the injector body are joined together by welding.

For reasons similar to those set forth above, the Luttrell reference and DeBold references are not properly combinable with the Takahashi reference. Therefore, Applicant submits that a prima facie case of obviousness has not been established and requests that the rejection of claim 18 be withdrawn. As claim 19 depends from claim 18, claim 19 is not rendered obvious by the references of record for at least the same reasons set forth with respect to claim 18.

New claims 24 and 25 each include a fuel injector assembly comprising a plurality of components, wherein at least one of the plurality of components is formed of solenoid-quality stabilized ferritic stainless steel. Claim 24 also states that the stabilized ferritic stainless includes between 0.26 and 1.5 weight percent of titanium. Claim 25 states that the stabilized ferritic stainless includes columbium.

None of the references of record teach or suggest a fuel injector assembly that includes a stabilized ferritic stainless having either columbium or 0.26 and 1.5 weight percent of titanium. Thus, Applicants submit that newly added claims 24 and 25 are in proper form for allowance.

Conclusion

In light of the foregoing, Applicant submits that claims 1, 3-9, 11-19, 24 and 25 are in condition for allowance and such allowance is respectfully requested. Should the Examiner feel that any unresolved issues remain in this case, the undersigned may be contacted at the telephone number listed below to arrange for an issue resolving conference.

The Commissioner is hereby authorized to charge the $172.00 fee required under 37 C.F.R. § 1.16(b) for the two additional independent claims in excess of the four independent claims already paid for, the $18.00 fee required under 37 C.F.R. § 1.16(c) for the one additional claim in excess of the twenty-two claims already paid for, and any other fee that may have been overlooked to Deposit Account No. 10-0223.

Respectfully submitted,

Dated: 9/30/04

Dennis B. Danella
Reg. No. 46,653

JAECKLE FLEISCHMANN & MUGEL, L.L.P.
190 Linden Oaks
Rochester, New York 14625-2812
Tel: (585) 899-2930
Fax: (585) 899-2931